



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

---

---

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

---

---

**Product Name:** Extended Life Red (ELC) Antifreeze

**Synonyms:** EG, ethylene glycol, 1, 2-ethanediol, glycol alcohol

**CAS Number:** 107-21-1

**Chemical Formula:** C<sub>6</sub>H<sub>6</sub>O<sub>2</sub>

**General Use:** Freezing Point Depressant

**Manufacturer:** KMCO, 16503 Ramsey Road, Crosby, Texas 77532

**24-HOUR EMERGENCY NUMBER - CHEMTREC: 1-800-424-9300**

**KMCO PHONE:** (281) 328-3501

**FAX:** (281) 328-9528

**Restrictions on Use:** Do not eat, drink or smoke when using this product. Wash after using this product

---

---

### SECTION 2: HAZARD(S) IDENTIFICATION

---

---

**Hazard Classification:**

**OSHA Hazards:** Target Organ Effect. Harmful by Ingestion. Irritant. Teratogen

**Target Organs:** Liver, Cardiovascular System, Eyes, Kidney, Central Nervous System

**GHS Classification:**

Acute toxicity, Oral (Category 4)

Eye irritation (Category 2B)

Skin irritation (Category 3)

Specific target organ toxicity – single exposure (Category 3)

Specific target organ toxicity – repeated exposure (Category 2)



**Signal Word:** WARNING



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

SDS No. 39039

Revision: 1

### Hazard Statement(s):

|      |   |
|------|---|
| H302 | Harmful if swallowed.   |
| H316 | Causes mild skin irritation.  |
| H320 | Causes eye irritation.  |
| H335 | May cause respiratory irritation.                                   |
| H373 | *May cause damage to organs through prolonged or repeated exposure. |

### Precautionary Statement(s):

|                    |   |
|--------------------|---|
| P261               | Avoid breathing dust/fumes/gas/mist/vapors.   |
| P264               | Wash thoroughly after handling.   |
| P270               | Do not eat, drink or smoke when using this product.   |
| P301 + P312        | IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.  |
| P330               | Rinse mouth.  |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. |
| P314               | Get medical advice/attention if you feel unwell.  |

### HMIS Classification

|                        |   |
|------------------------|---|
| Health hazard:         | 2 |
| Chronic Health Hazard: | * |
| Flammability:          | 1 |
| Physical hazards:      | 0 |

### NFPA Rating:

|                |   |
|----------------|---|
| Health hazard: | 2 |
| Fire:          | 1 |
| Reactivity:    | 0 |

Description of Any Other Hazards Not Otherwise Classified: none known

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

| INGREDIENT Name:        | CAS NUMBER | %wt. or %v |
|-------------------------|------------|------------|
| Ethylene Glycol         | 107-21-1   | 94         |
| Proprietary Ingredients |            | 6          |





## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**6% of the composition of this material has been withheld as a trade secret.**

---

---

### SECTION 4: FIRST AID MEASURES

---

---

**EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists get medical advice / prevention.

**SKIN:** Wash off with soap and plenty of water. Call a physician,

**INGESTION:** IF SWALLOWED: Call a POISON CENTER or physician.

**INHALATION:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** Contact a POISON CENTER. See remarks in Section 11.

---

---

### SECTION 5: FIRE-FIGHTING MEASURES

---

---

**SUITABLE EXTINGUISHING MEDIA:** Water spray, water fog, dry chemical, alcohol resistant foam, carbon dioxide

**UNSUITABLE EXTINGUISHING MEDIA:** Straight streams of water

**SPECIAL FIRE FIGHTING PROCEDURES:** Water spray may be used to keep fire exposed containers cool, protect personnel attempting to stop leak, and disperse vapors. Evacuate area. Do not release runoff from fire control methods to sewers or waterways.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Above flash point, vapor-air mixtures are explosive within the flammable limits noted below. Sealed containers may rupture when heated.

**HAZARDOUS COMBUSTION PRODUCTS:** Smoke, fumes, carbon oxides, unknown organic compounds

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS:** Wear full protective clothing. Wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure – demand mode or positive pressure mode.



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

SDS No. 39039

Revision: 1

---

### SECTION 6: ACCIDENTAL RELEASE MEASURES

---

**PERSONAL PRECAUTIONS:** Use appropriate personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with spilled material. Insure adequate ventilation. Remove all sources of ignition. Use non-sparking tools and equipment.

**PROTECTIVE CLOTHING:** Standard work uniform. Impervious gloves. Safety glasses. Personnel should increase PPE level as deemed appropriate in any given situation.

#### EMERGENCY PROCEDURES:

**SMALL SPILLS:** Contain and recover liquid when possible. Collect liquid in appropriate container or absorb with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

#### LARGE SPILLS:

**Containment:** Shut off source of leak if safe to do so. Dike far ahead of liquid spill for later disposal. Do not allow material to enter sewers or waterways.

**Cleanup:** Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material (such as vermiculite or dry sand) and place in chemical waste container. Do not use combustible materials such as sawdust for the cleanup.

---

### SECTION 7: HANDLING AND STORAGE

---

**HANDLING PRECAUTIONS:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

**STORAGE REQUIREMENTS:** Keep container tightly closed in a dry and well ventilated place. Hygroscopic.

---

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

---

**ENGINEERING CONTROLS:** Controls should be such that adequate ventilation is provided.

**VENTILATION:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work place by controlling it at its source.





## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**RESPIRATORY PROTECTION:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA / NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (e.g. cleaning spills, reactor vessels, or storage tanks), wear an SCBA. *Warning! Air purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

**EYE PROTECTION:** Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133) Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.

**SKIN PROTECTION:** Wear chemically protective gloves, boots, aprons and gauntlets to prevent prolonged or repeated skin contact.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Make emergency eyewash stations, safety/quick drench showers and washing facilities available in work areas.

**WORK HYGIENIC PRACTICES:** Never eat, drink or smoke in work areas. Practice good personal hygiene after using this material especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Separate contaminate work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Discard belts and shoes that cannot be cleaned.

### EXPOSURE GUIDELINES:

|                    | <u>ppm</u>       | <u>mg/m3</u>     |
|--------------------|------------------|------------------|
| OSHA PEL-TWA:      | none established | none established |
| OSHA PEL STEL:     | none established | none established |
| OSHA PEL CEILING:  | 50 (vacated)     | 125 (vacated)    |
| ACGIH TLV-TWA:     | none established | none established |
| ACGIH TLV STEL:    | none established | none established |
| ACGIH TLV CEILING: | none established | 100              |

---

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

---



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**PHYSICAL STATE:** Liquid

**APPEARANCE AND COLOR:** Clear, red

**ODOR:** Odorless

**FLASH POINT:** 232° F (111° C)

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** 3.2% / 15.3% v/v

**AUTO IGNITION TEMPERATURE:** 748° F (398° C)

**DECOMPOSITION TEMPERATURE:** not available

**VAPOR PRESSURE:** 0.06 mm Hg @ 20°C

**ODOR THRESHOLD:** not available

**VAPOR DENSITY (air = 1):** 2.1

**pH:** 7 – 11.5

**RELATIVE DENSITY:** 9.28 lbs/gal @ 20° C

**SPECIFIC GRAVITY (H<sub>2</sub>O =1 AT 4 C):** 1.115

**MELTING POINT / FREEZING POINT:** -13° c (9° F)

**WATER SOLUBILITY:** soluble

**OTHER SOLUBILITIES:** alcohols, methyl isobutyl carbitol

**INITIAL BOILING POING AND BOILING RANGE:** Range not available

**EVAPORATION RATE (BuAc = 1):** not available

**PARTITION COEFFICIENT: n-OCTANOL/WATER:** not available

**VISCOSITY:** 21 cP @ 20°

**REFRACTIVE INDEX:** not available

**FORMULA WEIGHT:** mixture

---

---

### SECTION 10: STABILITY AND REACTIVITY

---

---

**REACTIVITY:** none under normal handling

**STABILITY:** Hygroscopic

**CONDITIONS TO AVOID (STABILITY):** Incompatible materials. Heat, flames and ignition sources.

**INCOMPATIBILITY (MATERIAL TO AVOID):** Strong acids, strong oxidizing agents, strong bases, aldehydes

**HAZARDOUS DECOMPOSITION BY-PRODUCTS:** Carbon monoxide, carbon dioxide, unidentified organic compounds

**HAZARDOUS POLYMERIZATION:** Hazardous polymerization will not occur





## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**CONDITIONS TO AVOID (POLYMERIZATION):** Not applicable – hazardous polymerization will not occur

**HAZARDOUS POLYMERICATION BY-PRODUCTS:** Not applicable – hazardous polymerization will not occur

---

---

### SECTION 11: TOXICOLOGICAL INFORMATION

---

---

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:** When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage. Exposure to and/or consumption of alcohol may increase toxic effects.

#### **ACUTE EFFECTS:**

**EYE CONTACT:** Causes eye irritation

**SKIN CONTACT:** May be harmful if absorbed through skin. Causes skin irritation

**INHALATION:** May be harmful if inhaled. Causes respiratory tract irritation.

**INGESTION:** Toxic if swallowed

**TARGET ORGAN EFFECTS:** no data available

**CHRONIC EFFECTS:** no data available

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Persons with pre-existing skin disorders, eye problem or impaired liver, kidney or respiratory function may be more susceptible to the effects of this substance

#### **ACUTE TOXICITY VALUES**

**ORAL LD50 (state animal):** Oral LD 50, rat – 4000 mg / kg

**DERMAL LD50 (state animal):** Dermal LD 50, rabbit – 10,626 mg/kg

**INHALATION LC50 (state animal):** no data available

#### **LISTED CARCINOGEN:**



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS:** no components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by the NTP.

**IARC LISTED AS POTENTIAL CARCINOGEN:** No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA LISTED AS POTENTIAL CARCINOGEN:** No component of the product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**REPRODUCTIVE TOXICITY:** Overexposure may cause reproductive disorder(s) based on tests with laboratory animals

**TERATOGENICITY:** Laboratory experiments have shown teratogenic effects

---

### SECTION 12: ECOLOGICAL INFORMATION

---

#### FROM TOXICITY TESTS ON AQUATIC AND/OR TERRESTRIAL ORGANISMS:

|          |   |
|----------|---|
| Fish:    | LC50 – Oncorhynchus mykiss (rainbow trout): 18,500 mg/l – 96h   |
|          | LC50 – Leuciscus idus (Golden orfe) - >10,000 mg/l – 48h        |
|          | NOEC – Pimephales promelas (fathead minnow) – 32000 mg/l – 7d   |
|          | NOEC – Pimephales promelas (fathead minnow) – 74,000 mg/l – 24h |
| Daphnia: | NOEC – Daphnia – 24,000 mg/l – 48h                              |
|          | LC50 – Daphnia magna (Water flea) – 41,000 mg/l – 48h           |

**ENVIRONMENTAL FATE:** When released into the soil, this material is expected to readily biodegrade, is expected to leach into groundwater and is not expected to evaporate significantly. When released into the water, this material is expected to readily biodegrade, and is expected to have a half-life between 1 and 10 days. When released into the air, this material is expected to be readily degraded, and is expected to have a half-life between 1 and 10 days.

**BIOACCUMULATION POTENTIAL:** Does not bioaccumulate

**POTENTIAL TO MOVE FROM SOIL TO GROUNDWATER:** No specific data available

**OTHER ADVERSE ENVIRONMENTAL EFFECTS:** No data available





## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

---

### SECTION 13: DISPOSAL CONSIDERATIONS

---

**CONTAINERS TO USE:** No specific recommendations

**RECOMMENDED DISPOSAL METHODS:** Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with Federal, State/Provincial and Local requirements.

**PHYSICAL AND CHEMICAL PROPERTIES THAT MAY AFFECT DISPOSAL ACTIVITIES:** No specific information available

**WHENEVER POSSIBLE, MATERIAL SHOULD NOT BE ALLOWED TO ENTER SEWAGE DISPOSAL SYSTEMS.**

**SPECIAL PRECAUTIONS FOR LANDFILL OR INCINERATION ACTIVITIES:** No specific information available

---

### SECTION 14: TRANSPORT INFORMATION

---

**U.S. DEPARTMENT OF TRANSPORTATION (49 CFR 172.101)**

**PROPER SHIPPING NAME (>5,250 pounds):** other regulated substances, liquid, n.o.s.  
(Ethylene Glycol)

**(<5,250 pounds):** Antifreeze

**HAZARD CLASS (>5,250 pounds):** 9

**(<5,250 pounds):** non-hazardous liquid

**UN/NA NUMBER:** NA3082

**PACKING GROUP:** III

**LABELS REQUIRED:** Class 9, NA3082

**SPECIAL PROVISIONS (172.102):** none

#### **PACKAGING AUTHORIZATIONS**

**A) EXCEPTIONS:** 173.155

**B) NON-BULK PACKAGING:** 173.203

**C) BULK PACKAGING:** 173.241

**QUANTITY LIMITATIONS:**



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

- A) PASSENGER, AIRCRAFT OR RAILCAR: no limit
- B) CARGO AIRCRAFT ONLY: no limit

### VESSEL STOWAGE REQUIREMENTS

- A) VESSEL STOWAGE: Category A
- B) OTHER: none

### IATA

UN NUMBER: 3082

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (contains ethylene glycol)

CLASS: 9

PACKING GROUP: III

SPECIAL PROVISIONS: A97, A158

### EXCEPTED QUANTITY

MAXIMUM PER INNER PACKAGE: 30 mL

MAXIMUM PER PACKAGE: 1.0 L

### LIMITED QUANTITY

PACKING INSTRUCTION: Y964

MAXIMUM PER PACKAGE: 30 kg gross

### PASSENGER AIRCRAFT

PACKING INSTRUCTION: 964

MAXIMUM PER PACKAGE: 450 L

### CARGO AIRCRAFT:

PACKING INSTRUCTION: 964

MAXIMUM PER PACKAGE: 450L

ERG CODE:9L

---

---

## SECTION 15: REGULATORY INFORMATION

---

---

### U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): CAS # 107-21-1 is listed on the TSCA inventory

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): Spills of





## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

this product over the RQ (Reportable Quantity) must be reported to the National Response Center. The RQ for Ethylene Glycol, CAS Number 107-21-1 is 5,000 pounds. Spills must be evaluated to calculate the total amount of Ethylene Glycol released. Report spills as required under Federal, state and local regulation.

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

**311/312 HAZARD CATEGORIES:** Acute Health Hazard, Chronic Health Hazard

**313 REPORTABLE INGREDIENTS:** Ethylene Glycol, CAS Number 107-21-1

**CLEAN WATER ACT (CWA):** None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**CLEAN AIR ACT (CAA):** CAS Number 107-21-1 (Ethylene Glycol) is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

### STATE REGULATIONS:

**California:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

**Ethylene Glycol is on the Right to Know lists of:** Massachusetts, Pennsylvania, New Jersey, Florida, Minnesota, Illinois, Rhode Island

### INTERNATIONAL REGULATIONS:

**Persistent Organic Pollutants (United Nations):** not listed

**Initial List of Prior Informed Consent Chemicals (United Nations):** not listed

**Ozone Depleting Substances (Montreal Protocol):** not listed

**Greenhouse Gases (Intergovernmental Panel on Climate Change):** not listed

**AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES:** Listed

**CANADA: DOMESTIC SUBSTANCES LIST:** Listed

**CANADA WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):** D1B Toxic Materials. D2A Very toxic materials.

**CANADIAN ENVIRONMENTAL PROTECTION AGENCY TOXICS LIST:** not listed



## EXTENDED LIFE RED (ELC) ANTIFREEZE

Date of Preparation: 5/15

**SDS No. 39039**

Revision: 1

**EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES:** All of the ingredients are listed on the EINECS inventory

**NEW ZEALAND:** HSNO Approved

**PHILLIPPINE INVENTORY OF CHEMICALS AND CHEMICAL SUBSTANCES:** listed

---

---

### SECTION 16: OTHER INFORMATION

---

---

Prepared by: KMCO

**Disclaimer:** This product is FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

KMCO believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty expressed or implied, is made concerning the information provided herein. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use of the product and of the information referred to herein are beyond the control of KMCO, KMCO expressly disclaims any and all liability as to any results obtained or arising from any of the product or reliance on such information.

For additional product information, please contact the KMCO Sales Office at (281) 272-4100.